

NOTES ON AUSTRALIAN DIPTERA. XXXIII.

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(One Text-figure.)

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In this short paper I present a synopsis of the species of the genus *Amenia* Robineau-Desvoidy, belonging to the Ameniinae, and the description of one new genus of the same Family, Tachinidae, which is referable to what is generally accepted as a distinct tribe under the name Trichopodini, a group which up to the present time has not been recorded as occurring in Australia.

I regret that because of much miscellaneous material being still in my hands in an unidentified condition it is impossible for me to publish a more extensive key to the Australian genera, as several genera of uncertain status still remain to be elucidated. I hope, however, to complete my work within the year and will then publish a full generic key.

At the time the following notes on the genus *Amenia* were written there seemed to be little chance that additional data would be obtained upon the Robineau-Desvoidy collection, but I have subsequently been informed that at least a part of this collection has been found, though to what extent it may prove of service in the elucidation of the Australian species described by that author, or indeed if it contains the types of any such species, is unknown to me at this time. There does not appear, however, to be any likelihood of a change in the status of the only two species involved, *Amenia imperialis* Robineau-Desvoidy and *A. leonina* Fabricius, so I present the data as available to me.

Genus AMENIA Robineau-Desvoidy.

This genus contains several very beautiful species, all of which are confined to Australia. There has been some difference of opinion as to the synonymy of two of the older described species, *leonina* Fabricius and *imperialis* Robineau-Desvoidy, and it is my intention to point out briefly herein the reason why I have arrived at my conclusion that the two names mentioned above are properly applicable to distinct species.

AMENIA LEONINA (Fabricius).

*Syst. Ent.*, 1775, 776; *Ent. Syst.*, iv, 1794, 318; Malloch, Proc. LINN. Soc. N.S.W., 55, pt. 2, 1930, 101.

Wiedemann redescribed this species from the material in the Fabricius collection and in his description he specifically mentions the silvery anterior vittae on the mesonotum, "Ruckenschild erzgrun, vorn mit vier wenig merklichen, kupferrothlichen striemen, deren mittlere in gewisser richtung silberschimmern (lineola apicis des Fabricischen textes)", and the description of the head contains the following that applies to only the specimens that I have determined as belonging here: "Hinterkopf duster erzgrun, mit rothlichem, den scheidel

erreichenden mittelflecke." The abdomen, he states, has "an jeder seite des zweiten abschnittes steht ein silbertropfen nahe am seitenrande und ein anderer minderer sichtbarer, ja in gewisser richtung ganzlich verschwindender, in der mitte jeder seite".

AMENIA IMPERIALIS Robineau-Desvoidy.

Essai sur Myod., 1830, 443; Malloch, Proc. LINN. Soc. N.S.W., 55, pt. 2, 1930, 101.

The author of the second species had before him what he accepted as two species; one he considered to be *leonina* and the other he described as new under the above name. He gives the description of the thorax as follows: "corslet d'un beau vert-dore metallique, avec trois points argentes de chaque cote du dos", and the abdomen "d'un beau vert-dore metallique, avec deux petits points blancs sur les cotes du second segment et deux autres points blancs plus larges sur le penultieme segment".

His distinction between the two species under the heading of the older one is as follows: "Elle differe de l'*A. imperialis* par ses teintes azurées, par sa face ferrugineuse, par la presence de deux petites lignes argentées vers le sommet de l'écusson, et par ses cuillerons moins blancs."

There are unquestionably two species here, the males being very distinct in that the frons in *leonina* is reduced to a mere line on its upper portion, while in *imperialis* the male has the frons about as wide as or wider than the length of the antenna. In the females the frons is narrower in *leonina* than in *imperialis* also, and in both sexes the dark green upper outer halves of the back of the head are conspicuously different from the densely golden-yellow dusted upper half of the occiput in *imperialis*.

I have never been able to detect any fine hairs on the membranous strip below the lower calypter in *imperialis*, but in many specimens of *leonina* there are such hairs, though the feature is not constant enough to justify the use of it as a specific character.

In connection with the above notes it may be of interest to note that Dr. Engel, in his paper in 1925 (*Zool. Jahrb.*, 50, pp. 350-353), uses the name *leonina* for what I accept as *imperialis*, and *stictica* Engel for *leonina* as adopted in my previous papers and this one. He agrees with me in the acceptance of *parva* Schiner, which I have since sunk as a synonym of *chrysame* Walker, and in a recent letter to me Dr. Engel has suggested the same synonymy, though he has not had confirmation from Major Austen of the British Museum, to whom he has written for information on the matter. Dr. Engel had seen only the type of *parva*, which I had also seen, and he based his conclusions on the synonymy of *leonina* and *imperialis* on the strength of an opinion expressed to him by Mr. E. Seguy of the Paris Museum, where supposedly the Robineau-Desvoidy type should be. We accept the determination of *imperialis*, but respectfully submit that *leonina*, the type of which may be destroyed, judging from the Wiedemann description, is quite distinct and is certainly identical with *stictica* Engel.

AMENIA CHRYSAME (Walker).

*List Dipt. Brit. Mus.*, pt. 4, 1849, 866; Malloch, Proc. LINN. Soc. N.S.W., 55, pt. 2, 1930, 101.

Resembles a small *leonina* in general colour, with the same dark sides on the upper half of back of head, but the upper postocular orbits are silvery-white, not yellow, the hairs and bristles of the head are all black, the proclinate frontal,

the acrostichal, and anterior two pairs of the postsutural dorsocentral bristles are much stronger, and there are submedian silvery spots on 2nd tergite.

In addition to the records I have already published, I have before me now a specimen from Katoomba, Blue Mts., N.S.W., 3,400 feet (Dodd).

*AMENIA DUBITALIS* Malloch.

PROC. LINN. SOC. N.S.W., 52, pt. 3, 1927, 343.

I have seen no further material of this species.

*AMENIA NIGROMACULATA* Malloch.

PROC. LINN. SOC. N.S.W., 54, pt. 4, 1929, 286.

I have seen only the original male and female specimens of this species.

*AMENIA SEXPUNCTATA*, n. sp.

♂, ♀.—Black, with a violet-blue lustre, most pronounced on the posterior portion of the thorax, and on the abdomen. Head orange-yellow, ocellar spot fuscous, interfrontal stripe darker than the frontal orbits, the latter and the parafacials and genae densely golden-yellow-dusted; antennae and palpi orange-yellow; proboscis black; genal and lower occipital hairs yellow, the others and bristles black; postocular orbits concolorous with genae. Thorax black, with a distinct blue or violet-blue lustre, most pronounced posteriorly and on scutellum, anterior margin of mesonotum with white dust, most distinct on two short stripes just outside of the dorsocentral series and two more conspicuous stripes against the humeri, the region between the dorsocentrals less densely dusted; postsutural region with the usual two white-dusted spots, one supra-alar and the other postalar, the central region hardly dusted; pleura with two silvery-white-dusted spots, one on the mesopleura and the other on the sternopleura. Abdomen more evenly violet-blue than the thorax, with a pair of white-dusted spots on disc of each tergite from second visible one to fourth, largest on fourth, and with a small spot of the same colour on the curve of second and another on fourth; all hairs and bristles black. Legs black, the femora slightly blue-tinged. Wings hyaline, infuscated, but not black, at bases. Calyptrae black, with the connecting part white. Halteres brownish-black.

Frons of male about as wide in front of ocelli as third antennal segment, the interfrontalia not entirely obliterated, the orbits with a series of fine inner marginal bristles and laterad of these numerous microscopic hairs, the ocellars minute and only the inner pair of verticals well developed; frons of female nearly one-third of the head-width, the orbits narrowed behind, at middle each is distinctly wider than the interfrontalia, and has one or two strong proclinate outer bristles in addition to the same armature as the male; all four vertical bristles well developed; facial carina broad, sometimes slightly sulcate centrally, vibrissae situated at about half the length of third antennal segment above mouth margin; parafacial about half as wide as height of gena, the latter about as high as length of antenna; arista plumose. Presutural acrostichals moderately strong, the anterior two pairs of postsutural dorsocentrals shorter than the posterior pairs; scutellum slightly concave or emarginate on each side of the apical pair of marginal bristles. Second visible tergite with a pair, the third and fourth each with a complete series of apical bristles. Costa and the radial veins not abnormally curved, third vein quite copiously setulose on basal third of the section basad of the inner cross-vein. Length, 14-15 mm.



Type, male, allotype, and two male paratypes, Palmerston, N.T., October, 1908 (Oldenberg coll., Deutsches Entomologisches Institut). One male paratype will be sent to the Australian Museum through the kindness of Dr. Walther Horn.

I append below a key to the species of the genus known to me at this time.

*Key to the Species.*

1. Abdomen with the first visible tergite deep black, the others densely coated with greyish-white dust through which a green tinge shows from the underlying surface, second tergite with five deep black marks, a spot in centre, a small one on each side at the lateral curve, and a small mark on each extreme lateral edge below, third tergite with two additional black spots, each about as large as the central one, situated between the latter and the small one at the lateral curve, fourth tergite with a large central subtriangular black apical mark, its hind margin broad ..... *nigromaculata* Malloch.  
Abdomen either metallic-blue, blue-green, or violet-blue, with small isolated silvery-white-dusted spots on some of the tergites, not with deep black spots on a greyish-white-dusted ground ..... 2
2. Species deep violet-blue or blue-black, the mesonotum with the usual three silvery spots on each side and at least two white-dusted presutural vittae, and the abdomen with a pair of silvery-white-dusted submedian spots on visible tergites 2 to 4 inclusive ..... *sexpunctata*, n. sp.  
Species more brightly coloured, generally metallic blue or green, and never with a pair of submedian silvery-white-dusted spots on the third visible tergite of the abdomen ..... 3
3. Mesonotum without evident submedian white-dusted presutural vittae; abdomen without a trace of white submedian spots on the second visible tergite, only the one on each lateral curve present; frons of male at narrowest point much more than twice as wide as distance across posterior ocelli; presutural acrostichals not noticeably differentiated from the adjoining hairs ..... 4  
Mesonotum with a pair of very evident white-dusted submedian presutural vittae 5
4. Ocellar bristles well developed and widely divergent in male, the frons at vertex in same sex five or six times as wide as the distance across posterior ocelli ..... *imperialis* Robineau-Desvoidy.  
Ocellar bristles almost indistinguishable in the male, the frons at vertex in same sex not four times as wide as the distance across posterior ocelli ..... *dubitalis* Malloch.
5. Anterior postsutural dorsocentral bristles short and weak; postocular orbits very little paler on upper half than below; second visible abdominal tergite with a pair of submedian white-dusted spots, sometimes faint .... *leonina* (Fabricius).  
Anterior postsutural dorsocentral bristles quite long and strong; postocular orbits silvery-white on upper half, contrasting sharply with the yellow-dusted lower portion; second visible tergite of the abdomen without submedian white-dusted spots, only the usual one at each lateral curve ..... *chrysame* (Walker).

Genus PSEUDOTRICOPODA, n.g.

This genus belongs to a tribe which is so far unknown from Australia. The principal characters that distinguish the group consist of the bare parafacials and arista, elongate narrow abdomen which has at least five tergites visible when seen directly from above, the reduced tergal bristles, bare prosternum and propleura, and the very much widened posterior portion of the lower calypter which is almost transverse on its posterior margin and very noticeably emarginate on its outer edge. The posterior margin of the thorax above the hind coxae and below the base of the abdomen is rather high and more chitinized than usual except in the *Cylindromyiinae*, but there are some fine transverse rugae present. The *Cylindromyiinae* have, in addition to the more heavily chitinized posterior margin of the thorax noted above, the lower calypter narrower and distinctly rounded on hind margin, and without an emargination of the outer side. In

the structure of the lower calypter, and also in the more prominent knob just in front of the wing on the pleura, the group strongly resembles the Phasiinae, but the species are all much more slender and the apical bristles on the abdominal tergites, though weaker than in most Tachinidae, are usually distinguishable, moderately strong in the present genus. The first posterior cell ends almost in the apex of the wing and is closed in the margin, almost short stalked.

*Genotype*, the following species.

PSEUDOTRICHOPODA VARIPES, n. sp. Text-fig. 1.

♂.—Head whitish-yellow, frons deep velvety brownish-black except on the orbits, the latter becoming dark on the linear upper portions, back of head infuscated above but densely whitish-grey-dusted so that the ground colour appears pale, antennae brownish-black, apex of second segment reddish-yellow; arista dark brown; palpi pale orange-yellow; proboscis dark brown; frontal hairs and bristles, the upper postocular cilia, and the hairs and bristles on vibrissal angle black, the lower postocular cilia and the beard and genal hairs

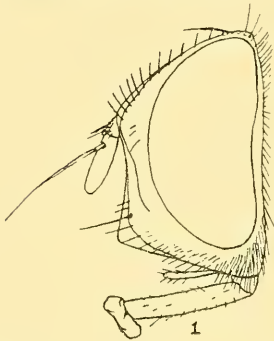


Fig. 1.—Head of *Pseudotrichopoda varipes*, from the side.

whitish-yellow; frontal orbits and upper portions of the parafacials yellowish-dusted, the face and cheeks white-dusted. Thorax fuscous, the pleural sclerites more yellowish along the sutures, grey-dusted, and with an oblique streak below wing base and a paler mark on anterior half of mesopleura darker than the remainder of surface; mesonotum with dense yellowish-grey dust upon which there are two deep black fasciae, one on anterior two-thirds of presutural and the other on the same extent of the postsutural area; scutellum deep black, merging into rufous-yellow at apex; pleural hairs whitish-yellow, remainder of hairs and bristles black. Abdomen black, first visible tergite translucent testaceous-yellow, except on a narrow dorsocentral vitta, second tergite with a large spot of the same pale colour on each side of anterior third, third tergite with two similar but much smaller pale spots in front, the black portions slightly greyish-dusted, more noticeably so apically. Legs orange-yellow, fore femora except their bases, the extreme apices of mid and hind femora, and all of the tibiae and tarsi of all pairs black. Wings very noticeably browned, especially on apical costal portion, the veins golden-brown, and a slight tinge of same colour on the membrane on costal half basally when seen from the tip and at a low angle. Calyptres brownish-yellow, the upper one white and the inner portion of the lower one paler yellow. Halteres brownish-yellow.

Eyes bare; more than twice as high as long at centre; frons at vertex about one-sixth of the head-width, twice as wide at anterior margin, the orbits linear above and becoming gradually wider in front, with a series of fine incurved inner marginal bristles on entire length which decrease in length above; ocellar bristles quite well developed, longer and stronger than the inner verticals, proclinate and slightly divergent, the inner verticals not longer than a pair of parallel bristles situated behind the ocelli; parafacials with two or three fine black hairs opposite the second antennal segment; head in profile as Figure 1. Thorax with 2 + 3 dorso-centrals, only two bristles on the presutural lateral area, one postsutural intra-

alar, one very inconspicuous pair of short acrostichals just in front of the suture, and the prealar very small and fine; sternopleurals 1 + 1; scutellum with four marginal bristles, and the short hairs descending sides but not at apex; no hairs below lower calypter. Abdomen slender, second tergite slightly longer than first and third visible, the fifth shortest and in type depressed on disc but possibly abnormal, surface hairs strong and decumbent, the apical central bristles distinguishable on all tergites but the first visible one, the fourth with an almost complete series, fifth with but a few short setulae on dorsum; fifth sternite broadly rounded at apex, not cleft, with a number of fine hairs and about six strong but rather short bristles in a group on each side of median line at apex; hypopygium retracted in type, the basal segment rounded and without hairs or bristles. Legs rather strong, the hind tibiae thicker than usual in unrelated groups, but without any scale-like anterodorsal bristles, the fore femur without distinct posteroventral bristles, mid pair with one or two ventral bristles on basal half, the hind pair with some similar bristles and but one bristle near apex on the anteroventral surface; fore tibia with a short submedian posterior bristle; fore tarsi slender at base, the apical two or three segments slightly widened; mid tibia with one anterodorsal, one posterodorsal, and one strong ventral bristle, all near middle; hind tibia with the short black hairs rather dense, and one anteroventral, and two anterodorsal and posterodorsal bristles. Wings about three times as long as wide, apices narrowly rounded, the first posterior cell ending in apex and with a very short stalk, inner cross-vein slightly beyond middle of discal cell but distinctly proximad of level of apex of first vein, third vein with one or two hairs at base; bend of fourth vein subangular. Length, 10 mm.

Type, Cairns, N. Qld. (Collection Oldenberg). In the Deutsches Entomologisches Institut, Berlin-Dahlem, Germany.

This genus differs from any other in the group in which I have placed it by the lack of lanceolate anterodorsal bristles on the hind tibiae, the possession of but two sternopleural bristles, the closed first posterior cell, and in having a few hairs on the upper part of the parafacials.

As far as we know all the closely related genera are parasitic upon Hemiptera.

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